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Defining Patient-Centred Care in Dentistry? A Systematic Review of the Dental Literature

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Abstract

This paper presents the results of a systematic review, designed to explore how patient –centred care is defined in the dental literature. An electronic search of MEDLINE (1946 - 2012), Embase (1980 -2012) PsycINFO (1806 - 2012), the Cochrane Library and non-peer reviewed literature was conducted using a standardised search protocol. Definitions of patient centred care were identified and scored using standard scoring criteria to evaluate quality of definition and quality of evidence. The findings showed that there is currently no shared definition of what constitutes patient-centred care in dentistry and the available data come from low quality studies.

Introduction

The Institute of Medicine(1) has defined Patient-Centred Care (PCC) as "*Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions*". PCC is a mode of healthcare delivery that puts the patient at the forefront of all decision-making and treatment and which has been associated with benefits in physical and psychological outcomes (2,3); as a result, it has been adopted by healthcare systems such as the UK's NHS.

The recent UK NICE guidance (4) proposed fourteen principles aimed to make the experience of adults using the NHS more patient-centred. These principles span a wide range of behaviours, from the most basic standard of the need to treat patients with dignity, kindness, compassion, courtesy, respect, understanding and honesty (principle 1), to patients being actively involved in shared decision making, supported in making decisions about treatment that are important to them (principle 6) and experiencing care that is tailored to their needs and personal preferences (principle 9).

Although both theory (i.e. the academic literature) and recommended practice (i.e clinical recommendations through NICE) endorse PCC, the extent to which these ideas

have truly transferred into dentistry, remains unknown. The UK General Dental Council (GDC) Standard for Dental Professionals (5), for instance, sets out the principles that dental professionals should follow. The principles are laid out and the Council's recommendation is that these should influence all areas of practice. Within this GDC document, Standard 2 is about 'Respecting patients' dignity and choices', where the premise is put forward that Dental Professionals should '*recognise and promote patients' responsibility for making decisions about their bodies, their priorities and their care…."* .

The above statement, although making explicit the need for dentists to be patient-centred by, for example, encouraging patients to have some responsibility about decision-making in a dental consultation, does not clearly identify the details of this process. It further fails to differentiate between different contexts and professionals or provide examples of how GDC members might implement this standard in day- to-day clinical practice. This has implications for dentists seeking to provide PCC. A recent review of PCC in the dental literature(6) demonstrates a lack of understanding of what PCC means in a dental context. The authors warn about the serious implications such a misunderstanding may have for the profession's ability to ensure patient-centred practice; a skill they see as a key component of any new quality outcome measures in dental care.

In previous work we have proposed (7,8*)* a model of PCC which incorporates a model of information and choice built on four foundations of good practice derived from the work of Mead and Bower (9) and Stewart et al. (10). These include taking a holistic approach and looking at the wider social context in which the patient is living. They also focus on the dentist/patient relationship and the development of a therapeutic alliance built on continuity and trust, and taking shared responsibility for the consultation. These theoretical models inherently incorporate within them the concepts of patient empowerment (i.e. the giving patients the tools to look after and be responsible for their own illness) and shared-decision-making, that is a situation where clinician and patient work as equal partners in a PCC-driven context.

Building on these foundations of PCC, recent work (7,8] has proposed that PCC can be extended from the foundations of good practice with the addition of a model of four levels of information and choice provision (Figure 1). This model of PCC starts with level one which is the equivalent of the clinician providing patients with didactic information, and moves through an understanding of the potential of choice between treatment options at level 2, to patients being given the tools to make an informed choice in level 3. By level 4 the patient is deemed to be in full control of their care and in the position to make a fully informed choice about the treatment that they wish, or do not wish to achieve. A patient centred approach would mean that the level at which information and choice are provided should be agreed between the clinician and patient, and does not assume that all patients would want, or be happy with a level 4 approach.

------ADD FIGURE 1 HERE-------

The current paper builds on the work of Mills et al (6) by presenting the findings from a systematic review of the concept of patient centred care in its broadest sense. i.e. by including the related concepts of patient empowerment and shared decision making, within the dental literature. In evaluating the evidence base, this review uses the model described above to assess whether there is a clear definition of what constitutes patient-centred care in dentistry and the extent to which it meets the criteria laid out therein. The paper by Mills et al (6) focuses solely on the term patient-centred care and does not look at the component parts of the concept. This review scores the papers according to both the level of evidence provided and the detail of the definition of patient-centred care that is used when compared with the theoretically derived model of patient-centred care outlined in figure 1. The question addressed by this systematic review is thus:

How is patient-centred care defined in primary and secondary dental settings?

Method

Search strategy

An electronic search of the Ovid version of MEDLINE (1946 to May week 2, 2012), Embase (1980 to 2012, week 20) and PsycINFO (1806 to May week 3, 2012) was conducted. Additionally, the Cochrane Library was searched during the same period as were sources of non-peer reviewed papers such as Department of Health guidelines. No limits regarding language or time period were applied at this stage. The search strategy included the following MESH terms: (patient-centred care OR patient-centered care OR empower* OR shared decision-making) AND (dentistry OR dentist* OR dental OR oral health)

The combination of terms and keywords produced a total of 390 citations, which, after the removal of duplicates resulted to N=272 papers. Titles and abstracts were inspected, following which, full text inspection of all eligible papers was undertaken. Standardised data extraction sheets were used throughout this process.

Inclusion and Exclusion Criteria

All papers that included the term patient-centred care or component concepts (empowerment, shared-decision making) in the title, abstract or keywords, were included. All papers reporting on dental patients receiving treatment in a clinical setting, irrespective of their age, nationality, procedure type and oral health risk were included. Papers were inspected for the provision (or not) of a definition of PCC.

Papers were not included if they were not dentally focused; focused on empowering communities or the dental team; or used patient-centred care to refer solely to continuity of care. Unpublished material and abstracts were not included and papers for which there was no English language translation were also excluded.

Data Extraction and Analysis

The obtained papers were scored on two criteria:-

1. Quality of the definition of patient-centred care, if one was present,

2. Type of evidence-base

The first criterion relied on the model of PCC by Asimakopoulou and Scambler (7) described in Figure 1, whilst the second criterion was based on guidance on assessing the quality of evidence (11,12). For the first criterion, definitions that talked about PCC being about the provision of information to the patient were scored 1. Making clear to the individual that he/she has a choice was scored as 2. Definitions that were placed in the third stage of the model described patients being given the tools to make an informed decision and were scored 3. Lastly, definitions that discussed the patient being in control of his/her care were rated as 4. Papers whose definition of patient-centredness/empowerment did not include any of the four stages described previously, and therefore scored zero, were not excluded. It was consensual among the reviewers to include all the papers that presented a definition or attempt at a definition, so one could understand *how* these concepts are defined and practised. Notes to this effect were made.

Level of evidence was scored using a simple 3 point scale with papers based on opinion scoring 0, non-systematic narrative papers reviewing existing evidence scoring 1 and papers based on empirical data or systematic reviews scoring 2. No attempt was made to further score the quality of the empirical studies in this review, however, the types of empirical study undertaken are noted in table 2.

Scoring and data extraction were performed independently by two reviewers (MD and SS). Disagreements were resolved by the third reviewer (KA) through blind coding the paper and subsequent discussion. A total score representing the level of the PCC model and the quality of the evidence base was then calculated for each paper.

Results

The electronic search of databases produced a total of 390 citations. After duplicates' removal, titles and abstracts of N=272 papers were examined independently by the reviewers for the presence of the terms patient empowerment/patient-centredness/shared decision-making in dentistry and 54 papers were selected for

further screening. Full-text papers for 52 articles were inspected, 1 of which was subsequently excluded through lack of an English language translation. The remaining 2 papers were unobtainable. Each of the 51 remaining papers was screened in full for the provision of a definition or attempt at a definition of patient-centred care, empowerment or shared decision-making. Twenty-eight papers were considered to have provided a definition of attempt at a definition of PCC and were deemed to have met the eligibility criteria for the study.

---- ADD FIGURE 2 HERE ------

These papers were included in the final analysis. Data were extracted on the definitions of PCC. These data appear in Table 1 that follows. What is clear from this is that there is a lot of variability in how authors perceive PCC and how they define it.

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Of the twenty-eight papers included in the review 16 papers did not meet any of the model definition's criteria; rather the definitions provided in these papers reflected good practice but did not move beyond this to PCC. Some of these papers focused on the provision of care that was holistic and humanistic whilst the remaining definitions in this category were about respecting patients' decisions, communicating effectively, being flexible in decision-making and making patients feel good about the treatment they are receiving. Of these, the majority presented an attempt to define patient-centred care but did not talk about information or choice (13-22). Four papers provided an attempt to define empowerment (23-26) and the remaining two papers scoring 0 in their definition presented an attempt to define shared decision-making (27,28).

The remaining 12 papers stated clearly in their aims and objectives the assessment, description or discussion of patient-centred choice and control. Of these, two papers were considered to have fulfilled one criterion of the PCC model (29,30), a total of seven papers were considered to have fulfilled two criteria (31-37) whilst the remaining three papers (38-40) fulfilled three criteria of the PCC model.

The definitions appearing in the papers above were then scored according to the model level of PCC they encompassed, as per Asimakopoulou and Scambler (7) and finally on their overall quality of evidence as per Greenhalgh (11) and McGrath et al. (12). See Table 2.

----- INSERT TABLE 2 HERE---------

Two papers were scored 1 in attempting to define the term empowerment. In one of these, the definition included the provision of information (29) and the other included the provision of tools to support patient treatment choice (30).

Seven articles were scored 2 on the PCC model. In six of them, the definition included the provision of information and choice (31-33, 35-37) and one referred to the provision of information and tools to patients (34). Most of these papers attempted a definition of patient-centredness, with only Goldberg (35) presenting a definition of empowerment.

Finally, a score of three was attributed to three papers. Of these, two defined patient-centred care (39,40) and one offered a definition of shared-decision making (38). In all of them, the definition included the provision of information, choice and tools to patients. No papers achieved a score of 4.

In terms of quality of evidence, papers were assessed using a modified version of Greenhalgh's (11), hierarchy of evidence. The majority of papers were review papers and were not based on empirical data, Seven papers were opinion based and a further 8 were empirical.

Non-peer reviewed literature

In order to discover whether there is a shared definition of what constitutes patient-centred care in dentistry, an analysis of non-peer reviewed literature was undertaken alongside the systematic review. To this end, policy documents, professional guidelines and other publications relating to PCC were assessed. In consultation with experts in the dental field, a list of key policy documents were compiled. The publications were analysed in relation to the presence of the terms empowerment, patient-centred care and shared decision-making. In addition, publications were screened for the presence of a definition, which was compared with the PCC model. Three documents mentioned the concepts of interest and provided a definition. However, only one provided a definition of patient empowerment related to the PCC model, and therefore was attributed a score other than zero (41). This review led by Professor Jimmy Steele, emphasised the need to empower dental patients. The document stated the importance of patients' choice, patients being supported by HCPs and achieving a feeling of trust and control. Despite this, the definition of empowerment identified in the text, referred only to the information component of the PCC model:

> *"...there is a clearly expressed need to empower patients by improving the provision of information on how to find and use dental services." (p. 53) (41)*

The other two documents provided a definition that did not meet any of the model criteria. One of these, defined patient-centred care as the dental patient being at the

centre of the care planning and emphasised the importance of communication, time, trust and specialist training (42). The other, mentioned that patient-centred care is required, and provided a definition of empowerment that referred to individuals acquiring confidence and reaching their full potential (43). In addition, two GDC documents were assessed and none of the terms of interest were stated (44,45). However, both stressed the importance of providing patients with the information they want and need, to make informed decisions. Finally, two additional publications did not mention the concepts: empowerment, patient-centred care or shared decision-making. However, the document by the English Department of Health, referred that the aims of government policy are to enable individuals to take control of their oral health and to make healthier decisions (46). The other, a document by Mencap (47), mentioned the importance of involving people with learning disabilities in the HCPs' training.

These results appear in Table 3.

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Discussion

This review examined how the concept of patient-centred care is defined in dentistry. A broad perspective of the concept, to include the related constructs of patient empowerment and shared decision-making was adopted. Peer and non-peer reviewed papers were assessed using Asimakopoulou and Scambler's (7) PCC model and Greenhalgh's (11) level of evidence frameworks.

Most papers included in the review, 16 in total, provided a definition that did not meet the PCC model criteria. Most authors defined patient-centredness and empowerment as synonymous with holistic and/or humanistic care.
The non-peer reviewed literature reviewed, offered similar findings. Of the seven publications assessed, three provided a definition of patient empowerment or

patient-centredness but only one included a definition that met the model's criteria (41). Of the 12 papers that included a definition that met one or more of the PCC model criteria only three papers included a definition, where the provision of information, choice and tools to patients were mentioned and no article presented a definition stating that patients were in control of their care. It seems that PCC is, as Mills et al. (6) showed in their review, still unclear to people working in dentistry with the idea of patients being in control of their treatment (PCC model level 4) not widely contemplated at the moment.

In terms of the level of evidence shown less than a third of the papers included in this review were based on empirical evidence, and of those that were, only 1 was an RCT study. The majority of papers were review papers with a further 7 based on opinion. Therefore, not only were there few papers, whose outcomes were about PCC in its widest sense or its principles but also the ones included did not offer a strong level of evidence.

On the basis of these results, we are forced to conclude that the concept of PCC is neither clearly understood nor empirically and systematically assessed in dental settings. Whilst most authors seem to suggest that PCC is about delivering care that is humane, delivered via good communication and encouraging patients to be responsible for decision-making, there is no work assessing these concepts empirically, relating them to practical outcomes or indeed showing that PCC is linked to patient satisfaction and treatment outcome. So although in medicine PCC has been systematically explored and its effects accepted as beneficial to patients (2,3), it would appear that dentistry has a lot of catching up to do.

Assessing the extent to which studies meet a set of criteria is ultimately a subjective process. This review attempted to standardise the process through the adoption of independent reviewers using a quantitative scoring system. Further, the screening process was limited to papers that were either written in English or for which there was an English translation available. Most papers selected, were USA based which,

of course, ascribes to a health system that is quite different from that of the UK. Only three articles were written in the UK and the remaining seven had Brazil, Canada, Finland, India, Norway, Spain and Sweden as countries of origin. Finally, the reviewers acknowledge that there may be different and simultaneously, valid definitions, alongside their use of the PCC model and thus, using other classification systems may well produce different results.

Conclusion

The concept of patient-centred care is becoming increasingly prominent in dentistry. Whilst not as widely applied nor researched as in general medicine, references to PCC and its principles are becoming more prevalent both in the dental literature and in policy documents. Despite the increasing prominence of the concept, however, there is a lack of a universally agreed definition in dentistry as to what the term means or how it can be translated into practice. PCC definitions seen in the dental literature are diverse, simplistic and broad, if they are provided at all. One could question whether informing dental patients about their care or placing them at the centre of treatment or simply ensuring that patients are seen by a dental practitioner, can be accepted as valid definitions for patient-centred care. It could be suggested that these are all necessary components of good quality care but not sufficient aspects of patient-centred care. This diversity of definitions leads to confusion regarding *what* patient-centred care is.

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